

ONE HUNDRED THIRTEENTH CONGRESS  
**Congress of the United States**  
**House of Representatives**  
COMMITTEE ON ENERGY AND COMMERCE  
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**SUPPLEMENTAL MEMORANDUM**

**April 1, 2014**

**To: Subcommittee on Oversight and Investigations Democratic Members and Staff**

**Fr: Committee on Energy and Commerce Democratic Staff**

**Re: GM Warranty Claims for Ignition Switch Defects on Recalled Vehicles**

In February and March 2014, General Motors (GM) recalled 2.6 million Chevrolet Cobalts and HHRs, Saturn Ions and Skys, and Pontiac G5s and Solstices because of defective ignition switches. According to GM, “a condition with the ignition switch ... may allow the key to unintentionally move or switch to the ‘accessory’ or ‘off’ position, turning off the engine and most of the electrical components on the vehicle,” including causing air bag failure in the event of a crash.<sup>1</sup> GM has linked the defect to 31 frontal crashes and 13 fatalities.<sup>2</sup>

To analyze the extent to which GM may have been aware of problems with these vehicles and whether the company appropriately reported information to federal authorities, the minority staff analyzed the company’s warranty claims database for the recalled vehicles. The staff analysis looked for cases where customers or GM technicians reported problems with vehicles that were unexpectedly stalling or turning off.

The analysis identified 133 cases – dating from June 2003 through June 2012 – of consumers raising concerns directly to GM dealers about vehicles that were unexpectedly stalling or turning off when going over bumps or when the key was bumped. In many of these warranty claims, the comments from consumers and GM technicians indicate that they had identified the ignition switch as the likely cause of the problem. Yet at the same time that GM

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<sup>1</sup> General Motors, GM Expands Switch Recall (online at [media.gm.com/media/us/en/gm/news.detail.html/content/Pages/news/us/en/2014/Feb/0225-ion.html](http://media.gm.com/media/us/en/gm/news.detail.html/content/Pages/news/us/en/2014/Feb/0225-ion.html)) (accessed on Mar. 29, 2014).

<sup>2</sup> General Motors, GM Expands Switch Recall (online at [media.gm.com/media/us/en/gm/news.detail.html/content/Pages/news/us/en/2014/Feb/0225-ion.html](http://media.gm.com/media/us/en/gm/news.detail.html/content/Pages/news/us/en/2014/Feb/0225-ion.html)) (accessed on Mar. 29, 2014).

was receiving these consumer complaints, the company continued to deny any defect. To this day, GM has not reported the vast majority of these incidents to National Highway Traffic Safety Administration (NHTSA) or revealed them to the public.

### **The GM Warranty Database**

One source of information about potential flaws in a motor vehicle is the warranty claims database. When customers with cars under warranty have problems, they often take their vehicles to dealers, who attempt to resolve the problems. This data is not reported to NHTSA or the public. But it can provide an early warning of vehicle defects.

At the request of the Committee, GM provided copies of the warranty claims database relating to ignition switch problems, stalls, and airbag problems in the recalled vehicles. This production consisted of approximately 150,000 records.<sup>3</sup> The minority staff analyzed this database, conducting basic text searches to identify cases where consumers reported to GM dealers that their cars were stalling after going over bumps or potholes or if the ignition system was jostled.

### **Findings**

The staff analysis of GM's warranty database identified 133 reports between June 2003 and June 2012 where customers indicated to dealers and service technicians that their vehicles stalled or turned off when the car went over a bump, hit a pothole, or when they otherwise inadvertently jostled the ignition system or struck the key.

The first case occurred in June 2003, when the owner of a 2003 Ion with 3,474 miles on the odometer reported that he or she "bumped [the] key and car shut off," with a note indicating that the GM "tech duplicated [the] concern."<sup>4</sup> The most recent case occurred in June 2012, when the owner of a 2006 Cobalt with 48,568 miles on the odometer reported that the "ignition lock cylinder will move and shut off vehicle when hitting bumps."<sup>5</sup>

The minority staff identified five warranty claims from 2003, 10 from 2004, 14 from 2005, 16 from 2006, 37 from 2007, 31 from 2008, seven from 2009, eight from 2010, four from 2011, and one from 2012. There were 22 reports for the Cobalt, two for the G5, one for the Solstice, 87 for the Ion, and 21 for the HHR.

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<sup>3</sup> General Motors production: GMHEC000200859, GMHEC000200860, GMHEC000200861, GMHEC000200862, GMHEC000218424, GMHEC000200863, GMHEC000200864, GMHEC000200865, GMHEC000200866, GMHEC000218423, GMHEC000218425, GMHEC000218426, GMHEC000218427, GMHEC000218428, and GMHEC000218429.

<sup>4</sup> Warranty Claim from 2003 Saturn Ion Owner (June 6, 2003).

<sup>5</sup> Warranty Claim from 2006 Chevrolet Cobalt Owner (June 25, 2012).

Examples of comment associated with the records include: “customer states sometimes when bumping ignition switch area vehicle will shut off”; “vehicle stalls out when hitting bump/pothole in road, noticed at 50 MPH”; “customer states when driving vehicle died at highway speeds”; “engine cuts out after hitting bumps”; “vehicle quit running while driving about 70 MPH after hitting bump in the highway”; “most likely cause was key turning to off position when hitting bumps”; “ignition key turns off when going over bumps”; “vehicle will shut off if key is bumped – tech verified concern”; “vehicle shuts off intermittently ... caused by bumping ignition with knee while driving”; “tech noted there is a potential for driver to inadvertently turn off the ignition”; and “key ring heavy and shutting off ignition.”<sup>6</sup>

The comment continue: “car dies while driving ... tech test drove found that ignition turn[s] really easy [and] when you hit a bump the switch rolls back”; “car dies out at times when hitting a bump. Looks like ignition turns off. Tech road tested. Found weak spring in ignition switch as cause”; “when hitting bumps in road vehicle has died four times”; “3x when going over bumps the car died”; “ignition turning itself off when hitting bump”; “technician found vehicle stalling due to too heavy of a key chain causing ignition to rotate to ‘off’ position when hitting bump”; and “customer bumped key and car shut off ... tech duplicated concern [and] found key not returning to proper spec after starting causing key to easily turn and shut off.”<sup>7</sup>

Table 1 contains information on all 133 ignition switch defect-related warranty reports identified by the minority staff for 2003-2007 Chevrolet Cobalts and HHRs, Saturn Ions and Skys, and Pontiac G5s and Solstices. Because this analysis was based on a simple text search relating to vehicles stalling over bumps, it most likely underestimates the number of warranty reports related to this issue received by GM.

Manufacturers must provide a broad summary of warranty data to NHTSA through Early Warning Reporting and defect chronologies, and NHTSA may request warranty claims as part of a defect investigation.<sup>8</sup> Nevertheless, there is currently no requirement for auto manufacturers to

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<sup>6</sup> Warranty Claim from 2007 Chevrolet Cobalt Owner (Sept. 29, 2010); Warranty Claim from 2006 Chevrolet Cobalt Owner (Sept. 8, 2010); Warranty Claim from 2007 Pontiac G5 Owner (July 28, 2010); Warranty Claim from 2006 Chevrolet HHR Owner (Aug. 6, 2010); Warranty Claim from 2006 Saturn Ion Owner (July 21, 2009); Warranty Claim from 2006 Saturn Ion Owner (Nov. 29, 2008); Warranty Claim from 2006 Chevrolet HHR Owner (Feb. 28, 2008); Warranty Claim from 2006 Saturn Ion Owner (Feb. 25, 2008); Warranty Claim from 2006 Saturn Ion Owner (Jan. 17, 2008); Warranty Claim from 2006 Saturn Ion Owner (Aug. 29, 2007); Warranty Claim from 2006 Saturn Ion Owner (Aug. 10, 2007).

<sup>7</sup> Warranty Claim from 2006 Saturn Ion Owner (July 2, 2007); Warranty Claim from 2006 Saturn Ion Owner (Jan. 16, 2007); Warranty Claim from 2003 Saturn Ion Owner (July 26, 2006); Warranty Claim from 2004 Ion Owner (June 29, 2005); Warranty Claim from 2004 Saturn Ion Owner (Sept. 21, 2004); Warranty Claim from 2003 Saturn Ion Owner (April 22, 2004); Warranty Claim from 2003 Saturn Ion Owner (June 6, 2003).

<sup>8</sup> 49 C.F.R. § 573.6 (1978); 49 C.F.R. 579.5(a), formerly at 49 C.F.R. 573.8 (1978); 49 C.F.R. 579.21 (2002).

proactively submit warranty claims to the agency. In this case, GM has not reported the vast majority of these claims to federal safety officials or to the public.

**Table 1: GM Warranty Claims for Defective Ignition Switches**

<b>Model</b>	<b>Model Year</b>	<b>Vehicle Miles</b>	<b>Complaint Date</b>
ION	2003	3,474	6/6/2003
ION	2003	9,300	7/1/2003
ION	2003	10,027	7/14/2003
ION	2003	10,639	7/21/2003
ION	2003	10,639	7/21/2003
ION	2003	7,807	3/15/2004
ION	2003	18,568	3/15/2004
ION	2003	16,108	4/8/2004
ION	2003	16,192	4/12/2004
ION	2003	9,554	4/22/2004
ION	2003	15,031	5/1/2004
ION	2003	17,222	6/21/2004
ION	2004	18,209	6/24/2004
ION	2004	138	9/21/2004
ION	2004	6,583	3/1/2005
ION	2004	12,883	3/17/2005
ION	2004	8,182	4/20/2005
ION	2004	10,387	5/7/2005
ION	2004	7,945	6/29/2005
ION	2005	16,767	7/18/2005
ION	2004	19,963	7/22/2005
ION	2004	13,743	8/18/2005
ION	2004	31,456	8/25/2005
ION	2006	2,470	9/19/2005
HHR	2006	445	10/24/2005
ION	2004	17,185	12/5/2005
ION	2004	13,716	12/13/2005
ION	2005	12,420	1/9/2006
ION	2004	32,688	1/10/2006
ION	2006	10,221	1/27/2006
ION	2006	3,468	2/23/2006
ION	2005	7,042	6/14/2006
ION	2005	17,375	7/11/2006
ION	2005	17,375	7/11/2006
ION	2006	9,057	7/25/2006
ION	2003	53,753	7/26/2006
ION	2005	13,929	7/29/2006
HHR	2006	13,464	8/3/2006
ION	2006	9,112	8/7/2006
ION	2004	36,911	10/16/2006

<b>Model</b>	<b>Model Year</b>	<b>Vehicle Miles</b>	<b>Complaint Date</b>
ION	2005	25,505	11/2/2006
ION	2004	12,850	11/29/2006
ION	2004	12,850	11/29/2006
ION	2006	30,439	1/16/2007
Cobalt	2005	15,123	3/5/2007
ION	2004	34,084	4/9/2007
HHR	2007	2,143	4/30/2007
Cobalt	2005	32,096	5/2/2007
Cobalt	2006	17,214	5/7/2007
ION	2006	26,819	5/19/2007
ION	2006	22,937	5/21/2007
ION	2006	15,791	5/30/2007
ION	2006	17,025	6/7/2007
Solstice	2006	9,749	6/20/2007
ION	2006	31,500	7/2/2007
HHR	2006	25,940	7/19/2007
ION	2005	17,303	8/2/2007
ION	2006	24,741	8/2/2007
ION	2006	24,741	8/2/2007
Cobalt	2005	29,551	8/6/2007
ION	2006	11,161	8/6/2007
HHR	2006	35,804	8/7/2007
ION	2006	25,486	8/10/2007
ION	2005	28,000	8/11/2007
ION	2004	21,814	8/16/2007
ION	2004	21,814	8/16/2007
ION	2006	8,638	8/21/2007
HHR	2007	13,982	8/28/2007
ION	2006	30,221	8/29/2007
ION	2007	12,257	9/10/2007
Cobalt	2006	18,460	9/12/2007
ION	2006	12,421	9/20/2007
HHR	2006	23,241	10/9/2007
ION	2007	7,884	10/12/2007
ION	2006	33,477	10/15/2007
HHR	2006	29,383	10/23/2007
HHR	2006	40,859	10/24/2007
HHR	2006	49,914	10/30/2007
ION	2004	57,642	10/30/2007
ION	2005	31,006	11/7/2007
HHR	2006	29,358	12/12/2007
Cobalt	2006	23,058	1/3/2008
ION	2006	23,883	1/17/2008

<b>Model</b>	<b>Model Year</b>	<b>Vehicle Miles</b>	<b>Complaint Date</b>
HHR	2006	30,808	1/31/2008
ION	2006	29,725	2/8/2008
ION	2007	15,247	2/13/2008
ION	2007	15,247	2/13/2008
ION	2006	20,513	2/25/2008
HHR	2006	24,811	2/28/2008
ION	2007	26,043	3/6/2008
ION	2007	7,538	3/10/2008
HHR	2006	24,955	3/14/2008
ION	2006	28,568	3/14/2008
ION	2007	11,594	3/17/2008
ION	2005	21,919	3/24/2008
ION	2006	21,942	5/21/2008
ION	2006	21,942	5/21/2008
ION	2006	21,942	5/21/2008
HHR	2006	27,363	6/19/2008
ION	2006	29,177	6/25/2008
Cobalt	2006	32,014	6/28/2008
ION	2006	23,889	7/9/2008
Cobalt	2005	62,512	7/22/2008
Cobalt	2006	49,509	8/22/2008
Cobalt	2006	49,509	8/26/2008
Cobalt	2007	24,357	9/2/2008
ION	2006	32,805	11/29/2008
ION	2007	13,696	12/2/2008
ION	2007	28,760	12/5/2008
ION	2007	35,611	12/5/2008
Cobalt	2006	21,310	12/18/2008
ION	2007	19,342	12/29/2008
G5	2007	27,270	1/5/2009
Cobalt	2006	35,514	6/1/2009
ION	2006	49,934	7/21/2009
HHR	2007	23,203	8/24/2009
ION	2003	36,770	8/24/2009
Cobalt	2006	26,040	8/28/2009
Cobalt	2007	31,328	12/18/2009
HHR	2007	32,629	2/15/2010
G5	2007	36,226	7/28/2010
Cobalt	2006	49,186	8/5/2010
HHR	2006	54,499	8/6/2010
HHR	2006	35,939	9/2/2010
Cobalt	2006	47,432	9/8/2010
Cobalt	2007	24,443	9/29/2010

<b>Model</b>	<b>Model Year</b>	<b>Vehicle Miles</b>	<b>Complaint Date</b>
ION	2006	40,820	11/4/2010
Cobalt	2005	70,380	6/15/2011
HHR	2006	51,404	9/12/2011
Cobalt	2007	58,321	9/13/2011
HHR	2006	39,692	9/28/2011
Cobalt	2006	48,568	6/25/2012